## NOTES

## PHARUS PARVIFOLIUS SUBSP. ELONGATUS (POACEAE), A NEW SUBSPECIES FROM TROPICAL AMERICA

While working on a revision of the Phareae (Poaceae: Bambusoideae), it became evident that the widespread neotropical species Pharus parvifolius Nash consists of two entities that merit subspecific recognition. The present note is necessary to validate the name of the new taxon, so that it will be available for use in my Flora Mesoamerica treatment. A more detailed study of this species will be presented in a forthcoming revision of Pharus.

Pharus parvifolius was described from Haiti (Nash, 1908). It is differentiated from other species in the genus by its colonial habit (old culms become decumbent and root at the nodes), strongly two-ranked foliage, lower (morphologically adaxial, as in all species in the Phareae) leaf blade surfaces with longitudinal sclerenchymatous bands between the small lateral veins, and linear-oblong pistillate spikelets with purple glumes.

Subspecies parvifolius is characterized by the following features: erect stems $25-50 \mathrm{~cm}$ long; leaf blades lanceolate, $6.5-15 \mathrm{~cm}$ long, $1-2.5 \mathrm{~cm}$ wide, asymmetrical, the apex attenuate, the lateral veins diverging from the midrib by $7-11^{\circ}$; panicle $8-15 \mathrm{~cm}$ long, the (naked) axis terminating the inflorescence $2-5 \mathrm{~cm}$ long; and pistillate spikelets $8-14 \mathrm{~mm}$ long. It is frequent in Cuba, Hispaniola, eastern Venezuela, and Surinam, with scattered stations in Central America, the smaller West Indian islands, French Guiana, Ecuador, and Brazil.

A more robust series of populations, widely distributed in the Neotropics but with a concentration of sites in Central America, is described.

Pharus parvifolius Nash subsp. elongatus Judziewicz, subsp. nov. TYPE: Costa Rica. Cartago: Los Espaveles Nature Trail into forested canyon of the Río Reventazón, Centro Agronómico Tropical de Investigación y Ensenanza (CATIE), $3 \mathrm{~km} E$ of Turrialba, $9^{\circ} 54^{\prime} \mathrm{N}, 83^{\circ} 39^{\prime} \mathrm{W}, 550-600 \mathrm{~m}, 9$ May 1983 , in young fruit, Liesner, Judziewicz \& Pérez 15281 (holotype, CR; isotypes, BAF, BM, CEPEC, COL, CR, CTES, DUKE, F, IBUG, INPA, ISC, LE, LPB, MEXU, MO, MVFA, NY, P, PMA, RB, SP, US, VEN, WIS, XAL).

Differt a $P$. parvifolius subsp. parvifolius statura altiore ( $60-125 \mathrm{~cm}$ ), laminae lineare-lanceolatae longiore ( $18-32 \mathrm{~cm}$ ) latioreque ( $2-3.5 \mathrm{~cm}$ ), nervi sub angulo $4-8^{\circ}$, inflorescentiae longiore ( $20-35 \mathrm{~cm}$ ), axis terminalae longiore ( $3.5-9 \mathrm{~cm}$ ), et spiculae feminae longiore ( $10-16 \mathrm{~mm}$ ).

Similar to subspecies parvifolius, but larger: culms stout, 3-6 mm diam.; erect culms 60-125 cm long; leaf blades linear to linear-lanceolate, $18-32 \mathrm{~cm}$ long, $2-3.5 \mathrm{~cm}$ wide, tapering to both base and apex, the lateral veins diverging from the midrib by $4-8^{\circ}$, panicle $20-35 \mathrm{~cm}$ long, the naked, terminal portion of the axis $3.5-7(-9) \mathrm{cm}$ long; pistillate spikelets slightly larger than in the typical variety; glumes $5.5-8 \mathrm{~mm}$ long, lemma 10-16(-17) mm long.

Representative specimens examined (only one given per country). Mexico. veracruz: Estación Biológica Los Tuxtlas, Calzada 1186 (ENCB, F, MEXU). Belize. TOLEDO: 2-3 mi. down trail beginning 1 mi . N of Columbia Forest Station, Vanderveen 631 (MO). Honduras. atlantida: Río Esperanza, near Elver's, Wilson 548 (US). Nicaragua. jinotega: Cerro El Congo, Comarca Kilambe, $13^{\circ} 35^{\prime} \mathrm{N}, 85^{\circ} 37^{\prime} \mathrm{W}, 955 \mathrm{~m}$, Sandino 112 (MO). Costa Rica. guanacaste: W side of Volcán Rincón de la Vieja, $1,150 \mathrm{~m}$, Pohl 12667 (F, ISC, MO, US). Panama. canal area: Barro Colorado Island, Foster 1766 (DUKE, F, GH, MICH, PMA). Jamaica. portland: Gorge of Stony River below junction of Macungo River, 1,200 ft., Proctor 31245 (ENCB, LL). Haiti. nord-ouest: Massif du Nord, Port-de-Paix, 150 m , Ekman H-3825 (S, US). Surinam. Between Kabalebo and Coppename Rivers, 20 km downstream from the Kabalebo airstrip, Bakhuis, Florschütz \& Maas 2523 (U). Ecuador. manabí: El Rosario, Eggers 15188 (F, P, fragm. US ex K). Peru. loreto: Puerto Arturo, Williams 5285 (F, GH, LE, US). Brazil. bahia: Rio Gongogi, Curran 110 (US). Bolivia. la paz: Covendo, 2,000 ft., White 1043 (US).

Both subspecies grow in the same habitat, moist to wet forests from near sea level to $1,000 \mathrm{~m}$ or more. The tendency toward geographical separation in these two entities, and their nearly absolute vegetative distinctness from each other (there are a few intermediate populations in northern Central America and Peru) suggest the rank of subspecies rather than variety. I do not believe that specific recognition is warranted. In addition to the intermediate specimens just mentioned, there is an apparent lack of temporal separation in flowering time between the two
subspecies, both blooming in the Northern Hemisphere dry season (about January to May). Also, although vegetatively most specimens can be assigned without much difficulty to one taxon or the other, there is a much greater degree of overlap in reproductive characteristics, especially in the pistillate spikelet.
Pohl and Davidse (1971) reported a chromosome number of $2 n=24$ (i.e., diploid, as in most other species in the genus) for the (now type) population of subsp. elongatus at Turrialba, Costa Rica. There are no chromosome counts of subsp. parvifolius.

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## Literature Cited

Nash, G. V. 1908. Two new grasses from the West Indies. Bull. Torrey Bot. Club 35: 301-302.
Pohl, R. W. \& G. Davidse. 1971. Chromosome numbers of Costa Rican grasses. Brittonia 23: 293324.
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